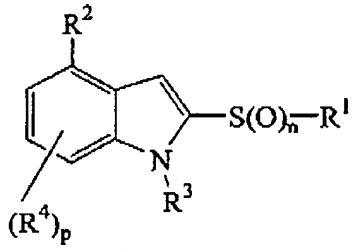
Claim Listing

1. (Previously Presented) A compound of the formula:



or a pharmaceutically acceptable salt thereof,

wherein

n is 2;

p is 1 or 2;

R^1 is aryl;

R^2 is a heterocyclyl;

R^3 is hydrogen or alkyl; and

each R^4 is independently hydrogen, hydroxy, cyano, alkyl, alkoxy, thioalkyl, alkylthio, halo, haloalkyl, hydroxyalkyl, nitro, alkoxycarbonyl, alkylcarbonyl, alkylsulfonyl, arylsulfonyl, haloalkylsulfonyl, amino, alkylamino, dialkylamino, alkyl(aryl)amino, alkylaminocarbonyl, alkylcarbonylamino, alkylcarbonyl(alkylamino), alkylaminosulfonyl, alkylsulfonylamino or methylenedioxy.

2. (Original) The compound according to Claim 1, wherein p is 1 and R^4 is located at the 6-position of the indole ring system.

3. (Original) The compound according to Claim 1, wherein R^2 is optionally substituted piperazin-1-yl or optionally substituted piperidin-4-yl.

4. (Original) The compound according to Claim 3, wherein R^2 is piperazin-1-yl, 4-methylpiperazin-1-yl, 3,5-dimethylpiperazin-1-yl, N-methyl piperidin-4-yl or piperidin-4-yl.

5. (Original) The compound according to Claim 4, wherein R^2 is 4-methylpiperazin-1-yl.

6. (Previously presented) The compound according to Claim 3, wherein R^1 is optionally substituted phenyl.

7. (Previously Presented) The compound according to Claim 6, wherein R^1 is phenyl which is optionally substituted with alkyl, halo, or haloalkyl.

8. (Previously presented) The compound according to Claim 7, wherein R^1 is phenyl, 2,3-dichlorophenyl, 2-fluorophenyl, 2-methylphenyl, 2-trifluoromethylphenyl, or 3-bromophenyl.

9. (Canceled)

10. (Currently Amended) The compound according to Claim [[9]] 1, wherein R^3 is hydrogen or methyl.

11. (Previously Presented) The compound according to Claim 1, wherein R^1 is phenyl which is optionally mono- or di-substituted independently with alkyl, halo, or haloalkyl.

12. (Previously presented) The compound according to Claim 11, wherein R^1 is phenyl, 2,3-dichlorophenyl, 2-fluorophenyl, 2-methylphenyl, 2-trifluoromethylphenyl, or 3-bromophenyl.

13. (Canceled)

14. (Previously Presented) The compound according to Claim 11, wherein R^2 is optionally substituted piperazin-1-yl or optionally substituted piperidin-4-yl.

15. (Original) The compound according to Claim 14, wherein R^2 is piperazin-1-yl, 4-methylpiperazin-1-yl, 3,5-dimethylpiperazin-1-yl, N-methyl piperidin-4-yl or piperidin-4-yl.

16. (Previously Presented) The compound according to Claim 15, wherein R^3 is hydrogen or methyl.

17. (Canceled)

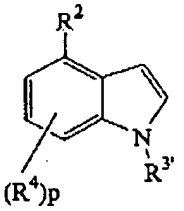
18. (Previously Presented) The compound according to Claim 15, wherein R^1 is phenyl which is optionally mono- or di-substituted independently alkyl, halo, haloalkyl.

19. (Original) The compound according to Claim 18, wherein R^2 is optionally substituted piperazin-1-yl or optionally substituted piperidin-4-yl.

20. (Previously Presented) The compound according to Claim 19, wherein R^3 is hydrogen or methyl.

21. (Previously Presented) A method for producing a compound of claim 1,

said method comprising contacting a substituted indole of the formula:

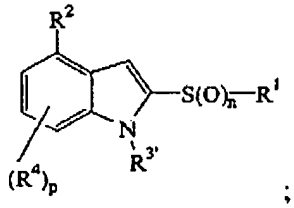


wherein $R^{3'}$ is alkyl and p, R^2 and R^4 are as recited in claim 1,

(i) with a base to produce a deprotonated indole; and

(ii) contacting the deprotonated indole with a sulfonylating agent of the formula:

$Y–SO_2–R^1$, where Y is halide and R^1 is as recited in claim 1, or a disulfide agent of the formula: $R^1–S–S–R^1$ to produce a 2-substituted indole of the formula:



(iii) oxidizing the sulfur with an oxidizing agent; and

(iv) optionally removing R^3 to produce the compound of claim 1.

22. (Previously Presented) The method of Claim 21, wherein Y is fluorine.

23. (Original) A composition comprising:

(a) a therapeutically effective amount of a compound of Claim 1; and

(b) a pharmaceutically acceptable carrier.

24-27 (Canceled)

28. (Previously Presented) A method for enhancing cognitive memory in an Alzheimer's patient, said method comprising administering to said Alzheimer's patient a therapeutically effective amount of a compound of claim 1.